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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/736,042

12/15/2003

Wayne Robert Furlan

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05/19/2006

AIR PRODUCTS AND CHEMICALS, INC.
PATENT DEPARTMENT
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EXAMINER

COONEY, JOHN M

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/736,042

Applicant(s)

FURLAN ET AL.

Examiner

John m. Cooney

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1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Applicant's arguments filed 3-6-06 have been fully considered but they are not persuasive.

The following rejections are set forth as new or maintained:

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 6-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims are confusing as to intent because terms "a" and "b" are undefined and it can not be determined what the metes and bounds of applicants' claims are intended to be.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chojnacki et al.(5,883,142).

Chojnacki et al. disclose polyurethane foams prepared from isocyanates, polyols, hydrocarbon, fluorocarbon, and water blowing agents of the structure and boiling points claimed, catalysts as claimed, and oxyalkylene silicone foam stabilizers in amounts as claimed having controlled siloxane contents, blended average molecular weights (BAMW) of the polyether portion, ethylene oxide contents, and other structural details(see column 4 lines 4-19, the examples, and the claims, as well as, the entire document).

Chojnacki et al. is not seen to differ based on the employment of C4 or C5 hydrocarbons since the claims of Chojnacki et al. specifically provide for the inclusion of pentane, and the full teaching of Chojnacki et al. can not be limited specifically to that which is disclosed in its examples.

Chojnacki et al. does differ from applicants' claims in that it does not specifically recite the employment of silicone foam stabilizers having siloxane contents, blended average molecular weights (BAMW) of the polyether portion, ethylene oxide contents, and other structural details as defined by the claims. However, Chojnacki et al. does teach control of the siloxane contents, blended average molecular weights (BAMW) of the polyether portion, ethylene oxide contents, and other structural details for the purpose of regulating closed cell contents of the polyurethane foams obtained. Accordingly, it would have been obvious for one having ordinary skill in the art to have controlled the siloxane contents, blended average molecular weights (BAMW) of the

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polyether portion, ethylene oxide contents, and other structural details of the silicone foam stabilizers employed within the teachings of Chojnacki et al. for the purpose of regulating closed cell contents of the polyurethane foams obtained in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

Normally, changes in result effective variables are not patentable where the difference involved is one of degree, not of kind; experimentation to find *workable* conditions generally involves no more than the application of routine skill in the art of chemical engineering. *In re Aller* 105 USPQ 233. Similarly, the determination of *optimal* values within a disclosed range is generally considered obvious. *In re Boesch* 205 USPQ 215

Applicants' showing of results has been considered. However, a persuasive showing of new or unexpected results attributable to the employment of the selected silicone foam stabilizers in the compositions as claimed has not been made which is commensurate in scope with the scope of the claims as they stand. In order to establish unexpected results for a claimed invention, objective evidence of non-obviousness must be commensurate in scope with the claims which the evidence is offered to support. *In re Greenfield*, 571 F.2d 1185, 1189 (CCPA 1978), *In re Linder*, 457 F.2d 506, 508 (1972), *In re Tiffin*, 448 F.2d 791, 792 (1971).

Applicants' arguments have been considered but rejection is maintained for the reasons set forth in the previous Office action. The "R" and " R' " of Chojnacki et al.

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overlap with the "R" group of applicants' claims at the point where $a=c$ and $b=d$. Such overlap is significant given the closeness of the structures involved and function associated with the groups employed. Criticality of this feature has not been identified.

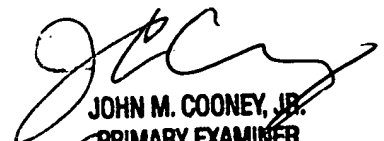
As to the ranges of molecular weight for the polyether portion of the copolymers of the instant concern, the ranges of values are considered sufficiently close that obviousness is evident, and criticality of the range has not been demonstrated. A prima facie case of obviousness has been held to exist where the proportions of a reference are close enough to those of the claims to lead to an expectation of similar properties. *Titanium Metals v Banner* 227 USPQ 773. (see also MPEP 2144.05 I). The closeness of the ranges is considered sufficient in that the ranges of values compared are averages of molecular weight for the polyether portion of the various copolymers in the composition. Additionally, all disclosures of the prior art, including unpreferred or auxiliary embodiments, must be considered in determining obviousness. In re Mills, 176 USPQ; In re Lamberti, 192 USPQ 278; In re Boe, 148 USPQ 507, and Chojnacki et al.'s disclosure of less preferred molecular weight values for their polyether portion which fall within applicants' claimed ranges can not be ignored.

The hydrocarbon limitations of applicants' claims are addressed in the rejection above, and do not need to be addressed further here.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JOHN M. COONEY, JR.
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